

WHAT IS CLAIMED IS:

1. A correlator for generating a correlation signal representing correlation between a received signal and spreading codes, comprising:

despreading means for despreading an inphase component and a quadrature component of said received signal using said respective spreading codes into despread signals;

conversion means for converting said despread signals into synchronized signals which are inphase with each other;

first averager means for averaging said respective synchronized signals over a predetermined period into first average signals;

first power calculation means for calculating first power information on said first average signals;

second power calculation means for calculating second power information on said despread signals;

second averager means for averaging said second power information over said predetermined period into second average signals; and

correlation calculation means for calculating said correlation signal based on said first power information and said second average signals.

2. A correlator as in claim 1, said correlation calculation means comprising:

multiplication means for multiplying one of said first power information and said second average signal by a factor

and outputting a result of the multiplication as an auxiliary signal; and

addition means for adding said auxiliary signal and another of said first power information and said second average signal and outputting a result of the addition as said correlation signal.

3. A method for generating a composite correlation signal representing correlation between a first signal and a second signal, comprising the steps of:

generating a first correlation signal representing correlation between a first component of said first signal and a first component of said second signal at regular intervals over a predetermined period;

generating a second correlation signal representing correlation between a second component of said first signal and a second component of said second signal at regular intervals over a predetermined period;

converting said first and second correlation signals into synchronized signals which are inphase with each other;

averaging said respective synchronized signals over said predetermined period into first and second average signals;

calculating power of said first and second average signals into a first power signal;

calculating power of said first and second correlation signals into a second power signal;

averaging said second power signal over said predetermined

period into a third average signal; and

calculating said composite correlation signal based on said first power signal and said third average signal.

4. A method as in claim 3, said step of calculating said composite correlation signal comprising the steps of:

multiplying one of said first power signal and said third average signal by a factor and generating a result of the multiplication as an auxiliary signal;

adding said auxiliary signal and another of said first power signal and said third average signal and outputting a result of the addition as said correlation signal.